of systolic RV function including Fractional Area Change (FAC%), tricuspid annular plane systolic excursion (TAPSE) and Tissue Doppler velocity (TDI) of tricuspid annulus. The aim of our study was to compare the conventional 2-D echocardiographic parameters of RV systolic function with CMR derived RVEF and stroke volume (SV). The echo and cardiac magnetic parameters to assess the right ventricular function are different. Consecutive patients referred to CMR for RV assessment from January 2011 to December 2014 were screened. 69 patients with CMR and adequate echo were selected. 20 subjects with normal CMR were enrolled as a control group. Quantitative 2-D echo measures were compared with CMR RVEF (%) and SV (ml). The comparison was made using linear correlation for the echo variables with CMR variables. The mean age of patients was 38.2 + 5.4 (51% females) were enrolled. 84.1% of patients had normal RVEF by CMR. In patients, FAC% but not TAPSE or annular TDI, correlated with CMR derived RVEF ($R = 0.45$, $p = 0.0001$) with fair agreement (kappa 0.43). However, FAC% did not correlate with CMR RV stroke volume. In contrast, in normal subjects, TAPSE had the best correlation with CMR derived RVEF ($R = 0.67$, $p = 0.0001$). In patients, CMR reclassified RV function assessed by FAC% in 11 (16%). 6 (8%) patients who had abnormal RV function by FAC% were reclassified as normal while 5 (7%) with normal RV function by FAC% were reclassified as abnormal. In normal subjects, however, only one with abnormal RV function by TAPSE was reclassified as normal by CMR. The current quantitative 2-D echo parameters of RV systolic function assessment correlate poorly with CMR measured RVEF and SV and behave differently in comparison with CMR in patients with normal and abnormal RV function. CMR should be utilized more often to measure RVEF and volumes to complement routine 2-D echocardiography measurements for comprehensive and accurate evaluation of RV systolic function.

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23. Epidemiological aspects and clinical outcomes of mitral valve prolapse in Saudi adults over a 10 year period

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Mitral valve prolapse (MVP) is a well recognized clinical entity that is associated with significant morbidity. Epidemiology, echocardiographic (echo) characteristics and clinical outcome of MVP in Saudi Arabia have not been studied. To determine the prevalence, echo features and clinical outcome of MVP among the adult Saudi patients who underwent echo evaluation over a 10-year period.Retrospective review of consecutive cases of MVP or any of its components as diagnose by echocardiogram. Study was conducted in King Abdulaziz Cardiac Center, Riyadh and included 121,419 adult echo studies done between January 2003 and December 2012. Study population consisted of 77,176 patients after removing duplicate studies. Echo parameters for all Saudi nationals $\geqslant$14 y of age were collected from the Xcelera database. Mitral valve disease due to non-myxomatous prolapse were excluded. Among the study population ($n = 77,176$) 600 patients were labled as having MVP or any of its echo features (0.7%). Mean age was 64 years and 62% were males. Majority of patients (54.4%) had mild MVP, while moderate and severe prolapse were present in 21.1% and 24.5% respectively. Severe mitral regurgitation was present in 16.5% and chordal rupture was noted in 9%. Left ventricular size was moderately dilated in 7.6% and severely dilated in 1.3%. Prevalence of MVP in Saudi nationals at a referral cardiac center is less than the reported international figure of 1-3%. In contrary to published literature MVP in Saudi population seems to be more common in males and seems to be diagnosed at a later age.

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24. Psycho-social impact of prosthetic heart valves on young Saudi females

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Background: Many patients with prosthetic heart valves (PHV) in Saudi Arabia fall at young age. Females in the reproductive age may encounter a significant amount of emotional stress due to struggling between own health, natural desires, husbands demands and societal expectations. Different types of PHV may impose variable degrees of psychological disturbances and family disruptions.
Objectives: The aim of this study is to evaluate presence and magnitude of psycho-social effects of PHVs in young Saudi females.
Methods: Seventy-five Saudi females with PHV (18–50 y) and their age and marital status-matched controls were included in the study. Self-administered questionnaire, that includes short-form Depression, Anxiety, and Stress Scale (DASS) was used to obtain data.
Results: Mechanical valve (MV) group ($n = 49$) were 6.5 y older ($P = 0.001$), more illiterate ($p < 0.001$) and less employed ($p = 0.031$) than biological valve (BV) group. Mean marital duration was 22.6 y in MV group and